

EXHIBIT NUMBER	DESCRIPTION OF DOCUMENT
*3.1	Certificate of Incorporation of KMC Telecom Holdings, Inc., as amended, dated as of April 30, 1999. (incorporated herein by reference to Exhibit 3.1 to KMC Telecom Holdings, Inc.'s Form 10-Q for the quarterly period ended June 30, 1999).
*3.2	Certificate of Powers, Designations, Preferences and Rights of the Series A Cumulative Convertible Preferred Stock, Par Value \$.01 Per Share, as amended, dated as of April 30, 1999. (incorporated herein by reference to Exhibit 3.2 to KMC Telecom Holdings, Inc.'s Form 10-Q for the quarterly period ended June 30, 1999).
*3.3	Certificate of Powers, Designations, Preferences and Rights of the Series C Cumulative Convertible Preferred Stock, Par Value \$.01 Per Share, as amended, dated as of April 30, 1999. (incorporated herein by reference to Exhibit 3.3 to KMC Telecom Holdings, Inc.'s Form 10-Q for the quarterly period ended June 30, 1999).
*3.4	Certificate of Powers, Designations, Preferences and Rights of the Series D Cumulative Convertible Preferred Stock, Par Value \$.01 Per Share, as amended, dated as of April 30, 1999. (incorporated herein by reference to Exhibit 3.4 to KMC Telecom Holdings, Inc.'s Form 10-Q for the quarterly period ended June 30, 1999).
*3.5	Certificate of Voting Powers, Designations, Preferences and Relative Participating, Optional or Other Special Rights and Qualifications, Limitations and Restrictions Thereof of the Series E Senior Redeemable, Exchangeable, PIK Preferred Stock, as amended, dated as of April 30, 1999. (incorporated herein by reference to Exhibit 3.5 to KMC Telecom Holdings, Inc.'s Form 10-Q for the quarterly period ended June 30, 1999).
*3.6	Certificate of Voting Powers, Designations, Preferences and Relative Participating, Optional or Other Special Rights and Qualifications, Limitations and Restrictions Thereof of the Series F Senior Redeemable, Exchangeable, PIK Preferred Stock, as amended, dated as of April 30, 1999. (incorporated herein by reference to Exhibit 3.6 to KMC Telecom Holdings, Inc.'s Form 10-Q for the quarterly period ended June 30, 1999).
*3.7	By-Laws of KMC Telecom Holdings, Inc. (incorporated herein by reference to Exhibit 3.3 to KMC Telecom Holdings, Inc.'s Registration Statement on Form S-4 (Registration No. 333-50475) filed on April 20, 1998. (hereinafter referred to as the "KMC Holdings' S-4")).
*4.1	Amended and Restated Stockholders Agreement dated as of October 31, 1997 by and among KMC Telecom Holdings, Inc., Nassau Capital Partners L.P., NAS Partners I L.L.C., Harold N. Kamine, KMC Telecommunications L.P., Newcourt Commercial Finance Corporation (formerly known as AT&T Credit Corporation), General Electric Capital Corporation, CoreStates Bank, N.A. and CoreStates Holdings, Inc. (incorporated herein by reference to Exhibit 4.1 to KMC Holdings' S-4).
*4.2	Amendment No. 1 dated as of January 7, 1998 to the Amended and Restated Stockholders Agreement dated as of October 31, 1997, by and among KMC Telecom Holdings, Inc., Nassau Capital Partners L.P., NAS Partners I L.L.C., Harold N. Kamine, KMC Telecommunications L.P., Newcourt Commercial Finance Corporation (formerly known as AT&T Credit Corporation), General Electric Capital Corporation, CoreStates Bank, N.A. and CoreStates Holdings, Inc. (incorporated herein by reference to Exhibit 4.2 to KMC Holdings' S-4).
*4.3	Amendment No. 2 dated as of January 26, 1998 to the Amended and Restated Stockholders Agreement dated as of October 31, 1997, by and among KMC

Telecom Holdings, Inc., Nassau Capital Partners L.P., NAS Partners I L.L.C., Harold N. Kamine, KMC Telecommunications L.P., Newcourt Commercial Finance Corporation (formerly known as AT&T Credit Corporation), General Electric Capital Corporation, CoreStates Bank, N.A. and CoreStates Holdings, Inc. (incorporated herein by reference to Exhibit 4.3 to KMC Holdings' S-4).

100

- *4.4 Amendment No. 3 dated as of February 25, 1998 to the Amended and Restated Stockholders Agreement dated as of October 31, 1997, by and among KMC Telecom Holdings, Inc., Nassau Capital Partners L.P., NAS Partners I L.L.C., Harold N. Kamine, KMC Telecommunications L.P., Newcourt Commercial Finance Corporation (formerly known as AT&T Credit Corporation), General Electric Capital Corporation, CoreStates Bank, N.A. and CoreStates Holdings, Inc. (incorporated herein by reference to Exhibit 4.4 to KMC Holdings' S-4).
- *4.5 Amendment No. 4 dated as of February 4, 1999 to the Amended and Restated Stockholders Agreement dated as of October 31, 1997, by and among KMC Telecom Holdings, Inc., Nassau Capital Partners L.P., NAS Partners I L.L.C., Harold N. Kamine, Newcourt Commercial Finance Corporation (formerly known as AT&T Credit Corporation), General Electric Capital Corporation, CoreStates Bank, N.A. and CoreStates Holdings, Inc. (incorporated herein by reference to Exhibit 4.5 to KMC Telecom Holdings, Inc.'s Form 10-K for the fiscal year ended December 31, 1998).
- *4.6 Amendment No. 5 dated as of April 30, 1999 to the Amended and Restated Stockholders Agreement dated as of October 31, 1997, by and among KMC Telecom Holdings, Inc., Nassau Capital Partners L.P., NAS Partners I L.L.C., Harold N. Kamine, Newcourt Commercial Finance Corporation (formerly known as AT&T Credit Corporation), General Electric Capital Corporation, First Union National Bank (as successor to CoreStates Bank, N.A.) and CoreStates Holdings, Inc. (incorporated herein by reference to Exhibit 4.11 to KMC Telecom Holdings, Inc.'s Form 10-Q for the quarterly period ended June 30, 1999).
- *4.7 Amendment No. 6 dated as of June 1, 1999 to the Amended and Restated Stockholders Agreement dated as of October 31, 1997, by and among KMC Telecom Holdings, Inc., Nassau Capital Partners L.P., NAS Partners I L.L.C., Harold N. Kamine, Newcourt Commercial Finance Corporation (formerly known as AT&T Credit Corporation), General Electric Capital Corporation, First Union National Bank (as successor to CoreStates Bank, N.A.) and CoreStates Holdings, Inc. (incorporated herein by reference to Exhibit 4.12 to KMC Telecom Holdings, Inc.'s Form 10-Q for the quarterly period ended June 30, 1999).
- 4.8 Amendment No. 7 dated as of January 1, 2000 to the Amended and Restated Stockholders Agreement dated as of October 31, 1997, by and among KMC Telecom Holdings, Inc., Nassau Capital Partners L.P., NAS Partners I L.L.C., Harold N. Kamine, Newcourt Commercial Finance Corporation (formerly known as AT&T Credit Corporation), General Electric Capital Corporation, First Union National Bank (as successor to CoreStates Bank, N.A.) and CoreStates Holdings, Inc.
- *4.9 Indenture dated as of January 29, 1998 between KMC Telecom Holdings, Inc. and The Chase Manhattan Bank, as Trustee, including specimen of KMC Telecom Holdings, Inc.'s 12 1/2% Senior Discount Note due 2008. (incorporated herein by reference to Exhibit 4.5 to KMC Holdings' S-4).
- *4.10 First Supplemental Indenture dated as of May 24, 1999 among KMC Telecom Holdings, Inc., KMC Telecom Financing, Inc. and The Chase Manhattan Bank, as Trustee, to the Indenture dated as of January 29, 1998 between KMC Telecom Holdings, Inc. and The Chase Manhattan Bank, as Trustee. (incorporated herein by reference to Exhibit 4.1 to KMC Telecom Holdings, Inc.'s Form 10-Q for the quarterly period ended September 30, 1999).
- *4.11 Indenture dated as of May 24, 1999 among KMC Telecom Holdings, Inc., KMC Telecom Financing, Inc. and The Chase Manhattan Bank, as Trustee,

including specimen of KMC Telecom Holdings, Inc.'s 13 1/2% Senior Notes due 2009. (incorporated herein by reference to Exhibit 4.2 to KMC Telecom Holdings, Inc.'s Form 10-Q for the quarterly period ended September 30, 1999).

- *4.12 Purchase Agreement dated as of May 19, 1999 among KMC Telecom Holdings, Inc. and Morgan Stanley & Co. Incorporated, Credit Suisse First Boston Corporation, First Union Capital Markets Corp., CIBC World Markets Corp., BancBoston Robertson Stephens Inc. and Wasserstein Perella Securities, Inc. (incorporated herein by reference to Exhibit 4.3 to KMC Telecom Holdings, Inc.'s Form 10-Q for the quarterly period ended September 30, 1999).

101

- *4.13 Collateral Pledge and Security Agreement made and entered into as of May 24, 1999 by KMC Telecom Financing, Inc. in favor of The Chase Manhattan Bank as Trustee. (incorporated herein by reference to Exhibit 4.4 to KMC Telecom Holdings, Inc.'s Form 10-Q for the quarterly period ended September 30, 1999).
- *4.14 Registration Rights Agreement dated as of January 26, 1998, between KMC Telecom Holdings, Inc. and Morgan Stanley & Co. Incorporated. (incorporated herein by reference to Exhibit 4.6 to KMC Holdings' S-4).
- *4.15 Registration Rights Agreement dated as of May 19, 1999 among KMC Telecom Holdings, Inc. and Morgan Stanley & Co. Incorporated, Credit Suisse First Boston Corporation, First Union Capital Markets Corp., CIBC World Markets Corp., BancBoston Robertson Stephens Inc. and Wasserstein Perella Securities, Inc. (incorporated herein by reference to Exhibit 4.5 to KMC Telecom Holdings, Inc.'s Form 10-Q for the quarterly period ended September 30, 1999).
- *4.16 Warrant Agreement dated as of January 29, 1998 between KMC Telecom Holdings, Inc. and The Chase Manhattan Bank, as Warrant Agent, including a specimen of Warrant Certificate (incorporated herein by reference to Exhibit 4.7 to KMC Holdings' S-4).
- *4.17 Warrant Agreement dated as of February 4, 1999 among KMC Telecom Holdings, Inc., The Chase Manhattan Bank, as Warrant Agent, Newcourt Commercial Finance Corporation and Lucent Technologies Inc. (incorporated herein by reference to Exhibit 10.2 to KMC Telecom Holdings, Inc.'s Form 10-Q for the quarterly period ended March 31, 1999).
- *4.18 Warrant Agreement dated as of April 30, 1999 among KMC Telecom Holdings, Inc., The Chase Manhattan Bank, as Warrant Agent, First Union Investors, Inc., Harold N. Kamine and Nassau Capital Partners L.P. (incorporated herein by reference to Exhibit 4.4 to KMC Telecom Holdings, Inc.'s Form 10-Q for the quarterly period ended June 30, 1999).
- *4.19 Amendment No. 1 dated as of April 30, 1999 to the Warrant Agreement dated as of February 4, 1999, among KMC Telecom Holdings, Inc., The Chase Manhattan Bank, as Warrant Agent, Newcourt Commercial Finance Corporation, Lucent Technologies Inc. and First Union Investors, Inc. (incorporated herein by reference to Exhibit 4.7 to KMC Telecom Holdings, Inc.'s Form 10-Q for the quarterly period ended June 30, 1999).
- *4.20 Amendment No. 2 dated as of June 1, 1999 to the Warrant Agreement dated as of February 4, 1999, among KMC Telecom Holdings, Inc., The Chase Manhattan Bank, as Warrant Agent, Newcourt Commercial Finance Corporation, Lucent Technologies Inc. and First Union Investors, Inc. (incorporated herein by reference to Exhibit 4.8 to KMC Telecom Holdings, Inc.'s Form 10-Q for the quarterly period ended June 30, 1999).
- *4.21 Securities Purchase Agreement dated as of February 4, 1999 among KMC Telecom Holdings, Inc., Newcourt Commercial Finance Corporation and Lucent Technologies Inc. (incorporated herein by reference to Exhibit

10.1 to KMC Telecom Holdings, Inc.'s Form 10-Q for the quarterly period ended March 31, 1999).

- *4.22 Securities Purchase Agreement dated as of April 30, 1999 between KMC Telecom Holdings, Inc. and First Union Investors, Inc. (incorporated herein by reference to Exhibit 4.2 to KMC Telecom Holdings, Inc.'s Form 10-Q for the quarterly period ended June 30, 1999).
- *4.23 Amendment No. 1 dated as of June 1, 1999 to Securities Purchase Agreement among KMC Telecom Holdings, Inc., First Union Investors, Inc., Newcourt Commercial Finance Corporation and Lucent Technologies Inc. (incorporated herein by reference to Exhibit 4.3 to KMC Telecom Holdings, Inc.'s Form 10-Q for the quarterly period ended June 30, 1999).
- *4.24 Warrant Registration Rights Agreement dated as of January 26, 1998 between KMC Telecom Holdings, Inc. and Morgan Stanley & Co. Incorporated. (incorporated herein by reference to Exhibit 4.8 to KMC Holdings' S-4).

102

- *4.25 Warrant Registration Rights Agreement dated as of February 4, 1999 among KMC Telecom Holdings, Inc., Newcourt Commercial Finance Corporation and Lucent Technologies Inc. (incorporated herein by reference to Exhibit 10.3 to KMC Telecom Holdings, Inc.'s Form 10-Q for the quarterly period ended March 31, 1999).
- *4.26 Warrant Registration Rights Agreement dated as of April 30, 1999 between KMC Telecom Holdings, Inc. and First Union Investors, Inc. (incorporated herein by reference to Exhibit 4.5 to KMC Telecom Holdings, Inc.'s Form 10-Q for the quarterly period ended June 30, 1999).
- *4.27 Amendment No. 1 dated as of April 30, 1999 to Warrant Registration Rights Agreement among KMC Telecom Holdings, Inc., Newcourt Commercial Finance Corporation and Lucent Technologies Inc. (incorporated herein by reference to Exhibit 4.6 to KMC Telecom Holdings, Inc.'s Form 10-Q for the quarterly period ended June 30, 1999).
- *4.28 Preferred Stock Registration Rights Agreement dated as of April 30, 1999 between KMC Telecom Holdings, Inc. and First Union Investors, Inc. (incorporated herein by reference to Exhibit 4.9 to KMC Telecom Holdings, Inc.'s Form 10-Q for the quarterly period ended June 30, 1999).
- *4.29 Amendment No. 1 dated as of June 1, 1999 to Preferred Stock Registration Rights Agreement among KMC Telecom Holdings, Inc., First Union Investors, Inc., Newcourt Commercial Finance Corporation and Lucent Technologies Inc. (incorporated herein by reference to Exhibit 4.10 to KMC Telecom Holdings, Inc.'s Form 10-Q for the quarterly period ended June 30, 1999).
- *10.1 Purchase Agreement dated January 26, 1998 by and between KMC Telecom Holdings, Inc. and Morgan Stanley & Co. Incorporated (incorporated herein by reference to Exhibit 10.1 to KMC Holdings' S-4).
- *10.2 Loan and Security Agreement dated as of December 22, 1998 among KMC Telecom Inc., KMC Telecom II, Inc., KMC Telecom of Virginia, Inc., KMC Telecom Leasing I LLC, KMC Telecom Leasing II LLC, the additional subsidiaries from time to time parties thereto, the financial institutions signatory thereto from time to time as "Lenders", First Union National Bank as Administrative Agent for the Lenders and Newcourt Commercial Finance Corporation (formerly known as AT&T Commercial Corporation), as Collateral Agent for the Lenders. (incorporated herein by reference to Exhibit 10.2 to KMC Telecom Holdings, Inc.'s Form 10-K for the fiscal year ended December 31, 1998).
- *10.3 Amendment No. 1 to Loan and Security Agreement dated as of March 3, 1999 to Loan and Security Agreement dated as of December 22, 1998, among KMC

Telecom Inc., KMC Telecom II, Inc., KMC Telecom of Virginia, Inc., KMC Telecom Leasing I LLC, KMC Telecom Leasing II LLC, the additional subsidiaries from time to time parties thereto, the financial institutions signatory thereto from time to time as "Lenders", First Union National Bank as Administrative Agent for the Lenders and Newcourt Commercial Finance Corporation (formerly known as AT&T Commercial Corporation), as Collateral Agent for the Lenders. (incorporated herein by reference to Exhibit 10.3 to KMC Telecom Holdings, Inc.'s Form 10-K for the fiscal year ended December 31, 1998).

- *10.4 Waiver and Amendment No. 3 to Loan and Security Agreement dated as of October 29, 1999 to Loan and Security Agreement dated as of December 22, 1998, among KMC Telecom Inc., KMC Telecom II, Inc., KMC Telecom of Virginia, Inc., KMC Telecom Leasing I LLC, KMC Telecom Leasing II LLC, the financial institutions from time to time parties thereto as "Lenders", First Union National Bank as Administrative Agent for the Lenders and Newcourt Commercial Finance Corporation (formerly known as AT&T Commercial Finance Corporation), as Collateral Agent for the Lenders. (incorporated herein by reference to Exhibit 10.4 to KMC Telecom Holdings, Inc.'s Registration Statement on Form S-4 (Registration No. 333-91237 and 333-91237-01) filed on November 18, 1999 (the "KMC Holdings 1999 S-4").

103

- 10.5 Amendment No. 4 to Loan and Security Agreement dated as of December 31, 1999 to Loan and Security Agreement dated as of December 22, 1998, among KMC Telecom Inc., KMC Telecom II, Inc., KMC Telecom of Virginia, Inc., KMC Telecom Leasing I LLC, KMC Telecom Leasing II LLC, the financial institutions from time to time parties thereto as "Lenders", First Union National Bank as Administrative Agent for the Lenders and Newcourt Commercial Finance Corporation (formerly known as AT&T Commercial Finance Corporation), an affiliate of The CIT Group, Inc., as Collateral Agent for the Lenders.
- 10.6 Amended and Restated Loan and Security Agreement dated as of February 15, 2000 by and among KMC Telecom Inc., KMC Telecom II, Inc., KMC Telecom III, Inc., KMC Telecom of Virginia, Inc., KMC Telecom Leasing I LLC, KMC Telecom Leasing II LLC, KMC Telecom Leasing III LLC, KMC Telecom.com, Inc., KMC III Services LLC, the financial institutions from time to time parties thereto as "Lenders", First Union National Bank as Administrative Agent for the Lenders, First Union National Bank, as Administrative Agent for the Lenders and Newcourt Commercial Finance Corporation (formerly known as AT&T Commercial Finance Corporation), an affiliate of The CIT Group, Inc., as Collateral Agent for the Lenders.
- *10.7 General Agreement by and among KMC Telecom Inc., KMC Telecom II, Inc. and Lucent Technologies Inc. dated September 24, 1997, as amended on October 15, 1997 (incorporated herein by reference to Exhibit 10.7 to KMC Holdings' S-4).
- 10.8 Amendment Number Two to the General Agreement by and among KMC Telecom Inc., KMC Telecom II, Inc., KMC Telecom Leasing I LLC, KMC Telecom Leasing II LLC and Lucent Technologies Inc. dated as of December 22, 1998.
- 10.9 Amendment Number Three to the General Agreement by and among KMC Telecom Inc., KMC Telecom II, Inc., KMC Telecom III, Inc., KMC Telecom of Virginia, Inc., KMC Telecom Leasing I LLC, KMC Telecom Leasing II LLC, KMC Telecom Leasing III LLC and Lucent Technologies Inc. dated as of November 15, 1999.
- 10.10 Amendment Number Four to the General Agreement by and among KMC Telecom Inc., KMC Telecom II, Inc., KMC Telecom III, Inc., KMC Telecom IV, Inc., KMC Telecom of Virginia, Inc., KMC Telecom Leasing I LLC, KMC Telecom Leasing II LLC, KMC Telecom Leasing III LLC, KMC Telecom Leasing IV LLC, KMC III Services LLC and Lucent Technologies Inc. dated as of February 15, 2000.
- *10.11 Professional Services Agreement between KMC Telecom Inc. and Lucent

Technologies, Inc. dated September 4, 1997. (incorporated herein by reference to Exhibit 10.8 to KMC Holdings' S-4).

- *10.12 Memorandum of Agreement between KMC Telecom Holdings, Inc. and EFTIA OSS Solutions Inc., dated as of October 26, 1998. (incorporated herein by reference to Exhibit 10.6 to KMC Telecom Holdings, Inc.'s Form 10-K for the fiscal year ended December 31, 1998).
- *10.13 Master License Agreement dated December 31, 1998 by and between Billing Concepts Systems, Inc. and KMC Telecom Holdings, Inc. (incorporated herein by reference to Exhibit 10.7 to KMC Telecom Holdings, Inc.'s Form 10-K for the fiscal year ended December 31, 1998).
- *10.14 Lease Agreement dated January 1, 1996 between Cogeneration Services Inc. (now known as Kamine Development Corp.) and KMC Telecom Inc. (incorporated herein by reference to Exhibit 10.8 to KMC Telecom Holdings, Inc.'s Form 10-K for the fiscal year ended December 31, 1998).
- *10.15 1998 Stock Purchase and Option Plan for Key Employees of KMC Telecom Holdings, Inc. and Affiliates. (incorporated herein by reference to Exhibit 4 to KMC Holdings, Inc.'s Form 10-Q for the quarterly period ended September 30, 1998).
- *10.16 Specimen of Non-Qualified Stock Option Agreement for options granted under the 1998 Stock Purchase and Option Plan for Key Employees of KMC Telecom Holdings, Inc. and Affiliates. (incorporated herein by reference to Exhibit 10.10 to KMC Holdings, Inc.'s Form 10-Q for the quarterly period ended September 30, 1998).

104

- *10.17 Amendment No. 1 made as of June 7, 1999 to 1998 Stock Purchase and Option Plan for Key Employees of KMC Telecom Holdings, Inc. and Affiliates (incorporated herein by reference to Exhibit 10.1 to KMC Telecom Holdings, Inc.'s Form 10-Q for the quarterly period ended June 30, 1999).
- 21.1 Subsidiaries of KMC Telecom Holdings, Inc.
- 24.1 Powers of Attorney (Appears on signature page).
- 27.1 Financial Data Schedule.

* EXHIBITS FILED PREVIOUSLY.

105

EX-4.8

2

AMENDMENT NO. 7

AMENDMENT NO. 7 TO
THE AMENDED AND RESTATED STOCKHOLDERS AGREEMENT

AMENDMENT NO. 7 dated as of January 1, 2000 to the Amended and Restated Stockholders Agreement, dated as of October 31, 1997 (as heretofore amended, the "Stockholders Agreement") among KMC Telecom Holdings, Inc., Nassau Capital Partners L.P., NAS Partners I L.L.C., Harold N. Kamine, Newcourt Commercial Finance Corporation (as successor to AT&T Credit Corporation), General Electric Capital Corporation, First Union National Bank (as successor to CoreStates Bank, N.A.) and CoreStates Holdings, Inc.

W I T N E S S E T H

WHEREAS, the parties hereto desire to make certain amendment to the Stockholders Agreement;

NOW, THEREFORE, in consideration of the premises and for other good and valuable consideration the receipt and sufficiency of which are hereby acknowledged, the parties hereto hereby agree as follows:

1. DEFINED TERMS. Unless otherwise defined herein, all capitalized terms defined in the Stockholders Agreement and used herein are so used as so defined.

2. AMENDMENTS TO SECTION 4.3.1 OF THE STOCKHOLDERS AGREEMENT. Section 4.3 of the Stockholders Agreement is amended to read as follows:

4.3. ELECTION OF DIRECTORS.

4.3.1 NUMBER AND COMPOSITION. Subject to Section 4.3.2, each Stockholder agrees that the number of directors shall be eight (8) and each Stockholder shall vote its or his Shares at any Stockholders Meeting, or act by Written Consent with respect to such Shares, and take all other actions necessary to ensure that the number of directors constituting the entire Board of Directors shall be eight (8), as provided for below. Each Stockholder shall vote its or his Shares at any Stockholders Meeting called for the purpose of filling the positions on the Board of Directors, or in any Written Consent executed for such purpose, and to take all other actions necessary to ensure, including, without limitation, using its or his best efforts to cause the Board of Directors to take such actions to ensure: (i) the election to the Board of Directors of (w) three individuals designated by Nassau to serve initially as Nassau Directors, (x) subject to paragraph (b) of Section 4.4, three individuals (one of whom shall be

the President and chief executive officer of the Company from time to time, elected pursuant to Article IV of the By-Laws) designated by Kamine to serve initially as Kamine Directors, (y) one independent director who shall be mutually acceptable to Nassau, Kamine and either AT&T or the Majority Series C Holders, provided that it is agreed that Gary E. Lasher shall be an independent director beginning November 1, 1997, and (z) one additional director who shall mutually acceptable to Nassau, Kamine and either AT&T or the Majority Series C Holders, provided that it is agreed that Roscoe C. Young II shall be mutually acceptable to each of the foregoing; (ii) the election to each committee of the Board of Directors of an equal number of Nassau Directors and Kamine Directors; and (iii) the election of an independent director to the compensation committee of the Board of Directors.

3. Except as expressly amended hereby, all of the provisions of the Stockholders Agreement are hereby affirmed and shall continue in full force and effect in accordance with their terms.

4. This Amendment shall be governed and construed in accordance with the laws of the state of Delaware applicable to agreements made and to be performed entirely within such state, without regard to the principles of conflicts of laws thereof.

5. This Amendment may be executed in one or more counterparts, each of which shall be deemed an original and all of which, taken together, shall constitute one and the same instrument.

IN WITNESS WHEREOF, the undersigned have executed, or caused to be executed, this Agreement as of the date first above written.

KMC TELECOM HOLDINGS, INC.

By: /s/

Name: Harold N. Kamine
Title: Chairman of the Board

NASSAU CAPITAL PARTNERS L.P.

By: Nassau Capital L.L.C., its General Partner

By: /s/

Name: John G. Quigly
Title: Member

NAS PARTNERS I L.L.C.

By: /s/

Name: John G. Quigley
Title: Member

HAROLD N. KAMINE
in his individual capacity

/s/

Harold N. Kamine

NEWCOURT COMMERCIAL FINANCE
CORPORATION

By: /s/

Name: Charles Brown
Title: Vice President

FIRST UNION NATIONAL BANK

By: /s/

Name: Pearce Landry
Title: Vice President

CORESTATES HOLDINGS, INC.

By: /s/

Name: Tracey M. Chaffin
Title: Vice President

GENERAL ELECTRIC CAPITAL
CORPORATION

By: /s/

Name: Mark F. Mylon
Title: Manager - Operations

EX-10.5

3

AMENDMENT NO. 4

AMENDMENT NO. 4

TO

LOAN AND SECURITY AGREEMENT

AMENDMENT NO. 4 TO LOAN AND SECURITY AGREEMENT ("AMENDMENT") dated as of December 31, 1999, is among KMC TELECOM INC., a Delaware corporation ("KMC"), KMC TELECOM II, INC., a Delaware corporation ("KMC II"), KMC TELECOM OF VIRGINIA, INC., a Virginia public service company ("KMC VIRGINIA"), KMC TELECOM LEASING I LLC, a Delaware limited liability company ("LEASING I"), KMC TELECOM LEASING II LLC, a Delaware limited liability company ("LEASING II"; KMC, KMC II, KMC Virginia, Leasing I and Leasing II being hereinafter collectively referred to hereinafter as the "BORROWERS"), the financial institutions from time to time parties thereto (the "LENDERS"), FIRST UNION NATIONAL BANK, as administrative agent for the Lenders (the "AGENT") and NEWCOURT COMMERCIAL FINANCE CORPORATION (f/k/a AT&T COMMERCIAL FINANCE CORPORATION), an affiliate of The CIT Group, Inc., as collateral agent for the Lenders (the "COLLATERAL AGENT"; the Agent together with the Collateral Agent being referred to as the "AGENTS").

WHEREAS, the Borrowers, the Agents and the Lenders are parties to that certain Loan and Security Agreement (the "LOAN AGREEMENT"; undefined capitalized terms used herein shall have the meanings assigned thereto in the Loan Agreement) dated as of December 22, 1998, as amended by Amendment No.1 thereto dated as of March 3, 1999, Amendment No. 2 thereto dated as of August 13, 1999, and Waiver and Amendment No. 3 thereto dated as of October 29, 1999, pursuant to which the Lenders have agreed to make certain "Loans" and other financial accommodations to the Borrowers; and

WHEREAS, the Borrowers have requested that the Agents and the Lenders amend the Loan Agreement in the manner set forth herein, and the Agents and the Lenders have agreed to such request;

NOW, THEREFORE, in consideration of the premises set forth above, and for other good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged, the Borrowers, the Agents and the Lenders agree as follows:

1. AMENDMENT TO THE LOAN AGREEMENT. Effective as of the date first above written and subject to the execution of this Amendment by the parties hereto, the Loan Agreement shall be and hereby is amended as follows:

1.1 SECTION 7.01(b) is hereby amended to add the following proviso thereto: -----

"PROVIDED, HOWEVER, that as of the last day of each fiscal quarter occurring on or after December 31, 1999, the Borrowers shall on a combined basis have revenues at least equal to the amount set forth below for such date:

FISCAL QUARTER ENDING	MINIMUM REVENUES
December 31, 1999	\$18,000,000
March 31, 2000	\$23,821,000
June 30, 2000	\$31,338,000
September 30, 2000	\$37,803,000
December 31, 2000	\$44,482,000

March 31, 2001

\$54,678,000"

1.2 SECTION 7.01(c)(i) is hereby amended to delete the proviso thereto and to substitute the following proviso therefor:

"PROVIDED, HOWEVER, that as of the last day of each fiscal quarter occurring on or after December 31, 1999 through and including December 31, 2000, the Borrowers shall not permit the EBITDA losses for all the Borrowers on a combined basis for the two fiscal quarters then ending to exceed the amount set forth below for such date:

FISCAL QUARTER ENDING	EBITDA LOSSES
December 31, 1999	(\$50,400,000)
March 31, 2000	(\$38,700,000)
June 30, 2000	(\$25,001,000)
September 30, 2000	(\$13,823,000)
December 31, 2000	(\$4,157,000)"

1.3 SECTION 7.01(c)(ii) shall be deleted in its entirety and replaced with the following new SECTION 7.01(c)(ii):

"As of the last day of the fiscal quarter ending March 31, 2001, the Borrowers shall not permit EBITDA for all the Borrowers on a combined basis for the two fiscal quarters then ending to be less than \$1,688,000."

2. CONDITIONS PRECEDENT. This Amendment shall become effective as of the date above written, if, and only if, the Agents have received duly executed originals of this Amendment from the Borrowers, the Requisite Lenders and the Agents on or prior to January __, 2000.

3. REPRESENTATIONS AND WARRANTIES OF THE BORROWERS. The Borrowers hereby represent and warrant as follows:

(a) This Amendment and the Loan Agreement, as amended hereby, constitute legal, valid and binding obligations of the Borrowers and are enforceable against the Borrowers in accordance with their terms.

(b) Upon the effectiveness of this Amendment, the Borrowers hereby reaffirm all representations and warranties made in the Loan Agreement, and to the extent the same are not amended hereby, agree that all such representations and warranties shall be deemed to have been remade as of the date of delivery of

2

this Amendment, unless and to the extent that any such representation and warranty is stated to relate solely to an earlier date, in which case such representation and warranty shall be true and correct as of such earlier date.

(c) As of the date hereof, and after giving effect to this Amendment, each Borrower shall be in compliance with all the terms and provisions set forth in the Loan Agreement, as amended hereby, on its part to be observed or performed, and no Event of Default or Default shall have occurred and be continuing.

4. REFERENCE TO AND EFFECT ON THE LOAN AGREEMENT.

(a) Upon the effectiveness of Section 1 hereof, on and after the date hereof, each reference in the Loan Agreement to "this Loan Agreement," "hereunder," "hereof," "herein" or words of like import shall mean and be a reference to the Loan Agreement as amended hereby, and each reference to the Loan Agreement in any other document, instrument or agreement shall mean and be a reference to the Loan Agreement as modified hereby.

(b) The Loan Agreement, as amended hereby, and all other documents, instruments and agreements executed and/or delivered in connection therewith,

shall remain in full force and effect, and are hereby ratified and confirmed.

(c) Except as expressly provided herein, the execution, delivery and effectiveness of this Amendment shall not operate as a waiver of any right, power or remedy of the Agents or the Lenders, nor constitute a waiver of any provision of the Loan Agreement or any other documents, instruments and agreements executed and/or delivered in connection therewith.

5. GOVERNING LAW. THIS AMENDMENT SHALL BE GOVERNED BY AND CONSTRUED IN ACCORDANCE WITH THE OTHER REMAINING TERMS OF THE LOAN AGREEMENT AND THE INTERNAL LAWS (AS OPPOSED TO CONFLICT OF LAW PROVISIONS) OF THE STATE OF NEW YORK.

6. PARAGRAPH HEADINGS. The paragraph headings contained in this Amendment are and shall be without substance, meaning or content of any kind whatsoever and are not a part of the agreement among the parties thereto.

7. COUNTERPARTS. This Amendment may be executed in one or more counterparts, each of which shall be deemed an original, but all of which together shall constitute one and the same instrument.

3

IN WITNESS WHEREOF, this Amendment has been duly executed as of the day and year first above written.

THE BORROWERS:

KMC TELECOM INC.

KMC TELECOM II, INC.

KMC TELECOM OF VIRGINIA, INC.

In each case:

By: /s/

Name: James D. Grenfell
Title: CFO

KMC TELECOM LEASING I LLC

By: KMC TELECOM INC., as its Sole Member

By: /s/

Name: James D. Grenfell
Title: CFO

KMC TELECOM LEASING I LLC

By: KMC TELECOM II, INC., as its Sole Member

By: /s/

Name: James D. Grenfell
Title: CFO

4

FIRST UNION NATIONAL BANK, as the
Agent and as a Lender

By: /s/

Name: Elizabeth Elmore
Title: Senior Vice President

NEWCOURT COMMERCIAL FINANCE CORPORATION
(f/k/a AT&T COMMERCIAL FINANCE
CORPORATION), an affiliate of The CIT
Group, Inc., as the Collateral Agent and
as a Lender

By: /s/

Name: Michael Monahan
Title: Vice President

CANADIAN IMPERIAL BANK OF
COMMERCE, as a Lender

By: /s/

Name: Tefta Chilaga
Title: Executive Director, CIBC World
Markets Corp. As Agent

GENERAL ELECTRIC CAPITAL
CORPORATION, as a Lender

By: /s/

Name: Mark F. Mylon
Title: Manager-Operations

BANKBOSTON, N.A., as a Lender

By: /s/

Name: Michael A. Ashton
Title: Vice President

5

CREDIT SUISSE FIRST BOSTON, as a
Lender

By: /s/

Name: Jeffery Ulmer
Title: Vice President

By: /s/

Name: Douglas E. Maher
Title: Vice President

DRESDNER BANK AG NEW YORK AND
GRAND CAYMAN BRANCHES, as a Lender

By: /s/

Name: John P. Fleseler
Title: Senior Vice President

By: /s/

Name: Constance Loosemore
Title: Assistant Vice President

MORGAN STANLEY SENIOR FUNDING,
INC., as a Lender

By: /s/

Name: T. Morgan Edwards II
Title: Vice President

By:

Name:
Title:

MORGAN STANLEY DEAN WITTER
PRIME INCOME TRUST, as a Lender

By: /s/

Name: Shelia Finnely
Title: Senior Vice President

6

UNION BANK OF CALIFORNIA, N.A., as a
Lender

By: /s/

Name: Keith M. Wilson
Title: Vice President

KEYPORT LIFE INSURANCE COMPANY,
as a Lender

By: /s/

Name: Brian W. Good
Title: Vice President & Portfolio Manager

STEIN ROE FLOATING RATE LIMITED

LIABILITY COMPANY, as a Lender

By: /s/

Name: Brian W. Good

Title: Vice President

Stein Roe & Farnham Incorporated,
Advisor to the Stein Roe Floating Rate
Limited Liability Company

7

REAFFIRMATION OF GUARANTY

Reference is hereby made to (i) that certain Guaranty dated as of December 22, 1998 (as amended, restated, supplemented or otherwise modified from time to time, the "GUARANTY") by KMC Telecom Holdings, Inc., a Delaware corporation (the "GUARANTOR"), in favor of Newcourt Commercial Finance Corporation (formerly known as AT&T Commercial Finance Corporation), an affiliate of The CIT Group, Inc., as collateral agent for the ratable benefit of the "Lenders" (defined below) (in such capacity, the "COLLATERAL AGENT"), (ii) that certain Loan and Security Agreement dated as of December 22, 1998 (as amended, restated, supplemented or otherwise modified from time to time, the "LOAN AGREEMENT") among KMC Telecom, Inc., KMC Telecom II, Inc., KMC Telecom of Virginia, Inc., KMC Telecom Leasing I LLC, KMC Telecom Leasing II LLC (each of the foregoing being referred to collectively as the "BORROWERS"), the financial institutions from time to time parties thereto (the "Lenders"), First Union National Bank, as administrative agent for the Lenders (the "Agent"), and the Collateral Agent, and (iii) that certain Amendment No. 4 to Loan and Security Agreement dated as of December 31, 1999 (the "AMENDMENT") among the Borrowers, the Lenders, the Agent and the Collateral Agent.

The Guarantor, by its signature below, without in any way establishing a course of dealing, hereby (i) acknowledges and consents to the execution and delivery of the Amendment by the parties thereto, (ii) agrees that the Amendment shall not limit or diminish the obligations of the Guarantor to guarantee all of the "Obligations" of each Borrower under and as defined in the Loan Agreement and such other amounts as are more specifically described in the Guaranty, (iii) reaffirms all of its obligations under the Guaranty, and (iv) agrees that the Guaranty remains in full force and effect and is hereby ratified and confirmed.

IN WITNESS WHEREOF, this instrument has been executed and delivered as of this 31st day of December, 1999.

KMC TELECOM HOLDINGS, INC.

By: /s/

Name: James D. Grenfell

Title: CFO, Executive Vice President and
Secretary

8

EX-10.6

4

AMENDED AND RESTATED LOAN AND SECURITY AGREEMENT

AMENDED AND RESTATED LOAN AND SECURITY AGREEMENT

DATED AS OF FEBRUARY 15, 2000

AMONG

KMC TELECOM INC.,
 KMC TELECOM II, INC.,
 KMC TELECOM III, INC.,
 KMC TELECOM OF VIRGINIA, INC.,
 KMC TELECOM LEASING I LLC,
 KMC TELECOM LEASING II LLC,
 KMC TELECOM LEASING III LLC,
 KMC TELECOM.COM, INC.

AND

KMC III SERVICES LLC
 AS BORROWERS,

THE FINANCIAL INSTITUTIONS FROM TIME TO
 TIME PARTIES HERETO,
 AS LENDERS,

AND

FIRST UNION NATIONAL BANK

AS ADMINISTRATIVE AGENT FOR THE LENDERS

AND

NEWCOURT COMMERCIAL FINANCE CORPORATION,
 AN AFFILIATE OF THE CIT GROUP, INC.,
 AS COLLATERAL AGENT FOR THE LENDERS

TABLE OF CONTENTS

	PAGE
ARTICLE I	
AMENDMENT AND RESTATEMENT; DEFINITIONS.....	2
SECTION 1.01. Amendment and Restatement.....	2
SECTION 1.02. Definitions.....	2
SECTION 1.03. Accounting Terms.....	23
SECTION 1.04. Others Defined in New York Uniform Commercial Code.....	23
ARTICLE II	
LOANS AND LETTERS OF CREDIT.....	23

SECTION 2.01.	Agreement to Lend.....	24
SECTION 2.02.	Loans.....	24
SECTION 2.03.	Procedure for Loan Request and Borrowing Commitment.....	25
SECTION 2.04.	The Notes.....	27
SECTION 2.05.	Interest on Loans.....	28
SECTION 2.06.	Conversion or Continuation.....	29
SECTION 2.07.	Special Provisions Governing LIBOR Loans.....	30
SECTION 2.08.	Payments.....	32
SECTION 2.09.	Optional and Mandatory Prepayment of Loans; Optional and Mandatory Reduction of Revolving Loan Commitment Amount.....	33
SECTION 2.10.	Letters of Credit.....	35
SECTION 2.11.	Fees.....	40
SECTION 2.12.	Manner of Payment; Special Tax Considerations.....	41
SECTION 2.13.	Maximum Lawful Interest Rate.....	46
SECTION 2.14.	Funding Issues.....	46
SECTION 2.15.	Joint and Several Liability; Contribution.....	47
ARTICLE III		
REPRESENTATIONS AND WARRANTIES.....		48
SECTION 3.01.	Organization; Powers.....	48
SECTION 3.02.	Corporate Authorization.....	48
SECTION 3.03.	Financial Statements.....	49
SECTION 3.04.	No Material Adverse Change.....	49
SECTION 3.05.	Litigation.....	49
SECTION 3.06.	Tax Returns.....	49
SECTION 3.07.	No Defaults.....	49
SECTION 3.08.	Properties.....	49
SECTION 3.09.	Licenses, Material Agreements, Intellectual Property.....	49
SECTION 3.10.	Compliance With Laws.....	50
SECTION 3.11.	ERISA.....	50
SECTION 3.12.	Investment Company Act; Public Utility Holding Company Act.....	51
SECTION 3.13.	Federal Reserve Regulations.....	51
i		
SECTION 3.14.	Collateral.....	51
SECTION 3.15.	Chief Place of Business.....	52
SECTION 3.16.	Other Corporate Names.....	52
SECTION 3.17.	Insurance.....	52
SECTION 3.18.	Milestone Plan.....	52
SECTION 3.19.	Capitalization and Subsidiaries.....	52
SECTION 3.20.	Real Property, Leases and Easements.....	52
SECTION 3.21.	Solvency.....	53
SECTION 3.22.	Brokers, etc.....	53
SECTION 3.23.	No Material Misstatements.....	53
SECTION 3.24.	Year 2000 Problems.....	53
ARTICLE IV		
CONDITIONS FOR LOANS.....		53
SECTION 4.01.	Conditions Precedent to Initial Loan on or after the Closing Date.....	54
SECTION 4.02.	Conditions Precedent to All Loans.....	58
ARTICLE V		
AFFIRMATIVE COVENANTS.....		60
SECTION 5.01.	Corporate and Franchise Existence.....	60
SECTION 5.02.	Compliance with Laws, Etc.....	60
SECTION 5.03.	Maintenance of Properties.....	60
SECTION 5.04.	Insurance.....	60
SECTION 5.05.	Obligations and Taxes.....	65
SECTION 5.06.	Financial Statements, Reports, etc.....	66
SECTION 5.07.	Litigation and Other Notices.....	68
SECTION 5.08.	Mortgages; Landlord Consents; Licenses and Other Agreements.....	68
SECTION 5.09.	ERISA.....	69
SECTION 5.10.	Access to Premises and Records.....	69
SECTION 5.11.	Design and Construction.....	69

SECTION 5.12.	Environmental Notices.....	69
SECTION 5.13.	Amendment of Organizational Documents.....	69
SECTION 5.14.	Third Party Agreements and Delivery and Acceptance Certificates.....	70
SECTION 5.15.	Accounts Payable.....	70
SECTION 5.16.	Intellectual Property. Such Borrower shall enter into Intellectual Property Documents, in form and substance satisfactory to the Collateral Agent, with respect to all of the Intellectual Property owned by such Borrower....	70
SECTION 5.17.	Fiscal Year.....	70
SECTION 5.18.	Required Contribution. The Borrowers shall obtain the Required Contribution on or prior to August 31, 2000.....	70
SECTION 5.19.	Subsidiary Guarantees and Pledges.....	70
SECTION 5.20.	Accounting; Maintenance of Records.....	71
SECTION 5.21.	Further Assurances.....	71
ARTICLE VI		
NEGATIVE COVENANTS.....		71
ii		
SECTION 6.01.	Liens, etc.....	71
SECTION 6.02.	Use of Proceeds.....	72
SECTION 6.03.	Sale of Assets, Consolidation, Merger, etc.....	72
SECTION 6.04.	Dividends and Distributions; Sale of Equity Interests.....	72
SECTION 6.05.	Management Fees and Permitted Corporate Overhead.....	73
SECTION 6.06.	Guarantees; Third Party Sales and Leases.....	73
SECTION 6.07.	Investments.....	73
SECTION 6.08.	Subsidiaries; Permitted Acquisitions.....	74
SECTION 6.09.	Permitted Activities.....	75
SECTION 6.10.	Disposition of Licenses, etc.....	75
SECTION 6.11.	Transactions with Affiliates.....	75
SECTION 6.12.	ERISA.....	75
SECTION 6.13.	Indebtedness.....	76
SECTION 6.14.	Prepayment and Debt Documents.....	76
SECTION 6.15.	Sale and Leaseback Transactions.....	77
SECTION 6.16.	Margin Regulation.....	77
SECTION 6.17.	Management and Tax Sharing Agreements.....	77
ARTICLE VII		
FINANCIAL COVENANTS.....		77
SECTION 7.01.	Financial Covenants Prior to Achieving Positive EBITDA.....	77
SECTION 7.02.	Financial Covenants After Achieving Positive EBITDA.....	78
ARTICLE VIII		
COLLATERAL SECURITY.....		80
SECTION 8.01.	Collateral Security.....	80
SECTION 8.02.	Preservation of Collateral and Perfection of Security Interests Therein.....	81
SECTION 8.03.	Appointment of the Collateral Agent as the Borrowers' Attorney-in-Fact.....	81
SECTION 8.04.	Collection of Accounts and Restricted Account Arrangements.....	81
SECTION 8.05.	Cure Rights.....	82
ARTICLE IX		
EVENTS OF DEFAULT; REMEDIES.....		82
SECTION 9.01.	Events of Default.....	82
SECTION 9.02.	Termination of Commitment; Acceleration.....	85
SECTION 9.03.	Waivers.....	85
SECTION 9.04.	Rights and Remedies Generally.....	86
SECTION 9.05.	Entry Upon Premises and Access to Information.....	86
SECTION 9.06.	Sale or Other Disposition of Collateral by the Agent.....	86
SECTION 9.07.	Governmental Approvals.....	87
SECTION 9.08.	Appointment of Receiver or Trustee.....	88
SECTION 9.09.	Right of Setoff.....	88
ARTICLE X		
THE AGENT AND THE COLLATERAL AGENT.....		89
iii		
SECTION 10.01.	Appointment of Agent.....	89

SECTION 10.02.	Agent's Reliance, Etc.....	90
SECTION 10.03.	FUNB and Affiliates.....	90
SECTION 10.04.	Lender Credit Decision.....	90
SECTION 10.05.	Indemnification.....	91
SECTION 10.06.	Successor Agent.....	91
SECTION 10.07.	Payments; Non-Funding Lenders; Information; Actions in Concert.....	92
SECTION 10.08.	Collateral Matters.....	93
SECTION 10.09.	Agency for Perfection.....	94
SECTION 10.10.	Concerning the Collateral and the Related Loan Documents and the Collateral Agent.....	94
ARTICLE XI		
MISCELLANEOUS.....		94
SECTION 11.01.	Notices; Action on Notices, etc.....	95
SECTION 11.02.	No Waivers; Amendments.....	95
SECTION 11.03.	Governing Law and Jurisdiction.....	96
SECTION 11.04.	Expenses.....	96
SECTION 11.05.	Equitable Relief.....	97
SECTION 11.06.	Indemnification; Limitation of Liability; Lucent Relationships.....	97
SECTION 11.07.	Survival of Representations and Warranties, etc.....	98
SECTION 11.08.	Successors and Assigns; Assignments; Participations.....	98
SECTION 11.09.	Severability.....	101
SECTION 11.10.	Cover Page, Table of Contents and Section Headings.....	101
SECTION 11.11.	Counterparts.....	101
SECTION 11.12.	Application of Payments.....	101
SECTION 11.13.	Marshalling; Payments Set Aside.....	101
SECTION 11.14.	SERVICE OF PROCESS.....	102
SECTION 11.15.	WAIVER OF JURY TRIAL, ETC.....	102
SECTION 11.16.	Confidentiality.....	102
SECTION 11.17.	Entire Agreement, etc.....	103
SECTION 11.18.	No Strict Construction.....	103

iv

EXHIBITS

EXHIBIT A	Milestone Plan
EXHIBIT B	Form of Collateral Assignment of Leases
EXHIBIT C	Form of Collateral Assignment of Licenses
EXHIBIT D	Form of Landlord Waiver
EXHIBIT E-1	Form of Revolving Loan Note
EXHIBIT E-2	Form of Term A Loan Note
EXHIBIT E-3	Form of Term B Loan Note
EXHIBIT F	Form of Periodic Reporting Certificate
EXHIBIT G	Form of Guaranty
EXHIBIT H-1	Form of Notice of Borrowing
EXHIBIT H-2	Form of Notice of Continuation/Conversion
EXHIBIT I	Financials
EXHIBIT J-1	Form of Secretary's Certificate of Borrower
EXHIBIT J-2	Form of Secretary's Certificate of KMC Holdings
EXHIBIT K-1	Form of Opinion of Borrowers' Special Counsel
EXHIBIT K-2	Form of Opinion of Borrowers' Regulatory Counsel

EXHIBIT K-3	Form of Opinion of Borrowers' Local Counsel
EXHIBIT L	Form of Pledge Agreement
EXHIBIT M	Form of Loss Payable Endorsement
EXHIBIT N	Form of Restricted Account Agreement
EXHIBIT O	Form of Assignment Agreement
EXHIBIT P	Form of Accession Agreement
EXHIBIT Q	Form of Contribution Agreement
EXHIBIT R	Form of Delivery and Acceptance Certificate
v	
EXHIBIT S	Form of Trademark Security Agreement
EXHIBIT T Agreement	Form of General Reaffirmation and Modification
EXHIBIT U	Form of Guaranty and Security Agreement

vi

SCHEDULES

SCHEDULE 1.01(a)	Applicable Margin
SCHEDULE 3.02	Consents
SCHEDULE 3.05	Litigation
SCHEDULE 3.09(a)	Governmental Authorizations and Approvals
SCHEDULE 3.09(b)	Material Agreements
SCHEDULE 3.09(c)	Intellectual Property
SCHEDULE 3.10	Environmental Matters
SCHEDULE 3.11	Plans
SCHEDULE 3.14	Filing Offices
SCHEDULE 3.16	Corporate and Fictitious Names
SCHEDULE 3.17	Insurance
SCHEDULE 3.19	Capitalization and Subsidiaries
SCHEDULE 3.20	Real Property, Leased Real Property and Easements
SCHEDULE 6.11	Transactions With Affiliates
SCHEDULE 8.04	Collection Accounts

ANNEXES

ANNEX A.....-	Commitment Amounts
ANNEX B.....-	Financial Covenant Information

ANNEX C.....- Revolving Loan Commitment Reductions and Term Loan Amortizations

vii

AMENDED AND RESTATED LOAN AND SECURITY AGREEMENT ("AGREEMENT") dated as of February 15, 2000 among KMC TELECOM INC., a Delaware corporation ("KMC"), KMC TELECOM II, INC., a Delaware corporation ("KMC II"), KMC TELECOM III, INC., a Delaware corporation ("KMC III"), KMC TELECOM OF VIRGINIA, INC., a Virginia public service company ("KMC VIRGINIA"), KMC TELECOM LEASING I LLC, a Delaware limited liability company ("LEASING I"), KMC TELECOM LEASING II LLC, a Delaware limited liability company ("LEASING II"), KMC TELECOM LEASING III LLC, a Delaware limited liability company ("LEASING III"), KMC TELECOM.COM, INC., a Delaware corporation ("TELECOM.COM"), KMC III Services LLC, a Delaware limited liability company ("SERVICES"), the Additional Borrowers from time to time parties hereto (KMC, KMC II, KMC Virginia, Leasing I, Leasing II, Leasing III, Telecom.com, Services and any Additional Borrowers being collectively referred to hereinafter as the "BORROWERS" and sometimes individually as a "BORROWER"), the financial institutions signatory hereto from time to time, as "Lenders", FIRST UNION NATIONAL BANK, as administrative agent for the Lenders (in such capacity, the "AGENT") and NEWCOURT COMMERCIAL FINANCE CORPORATION, formerly known as AT&T Commercial Finance Corporation and an affiliate of The CIT Group, Inc., as collateral agent for the Lenders (in such capacity, the "COLLATERAL AGENT").

RECITALS

A. The Borrowers (other than KMC III, Leasing III, Telecom.com and Services), the Lenders, the Agent and the Collateral Agent, are parties to a certain Loan and Security Agreement dated as of December 22, 1998, as amended pursuant to that certain Amendment No. 1 thereto dated as of March 3, 1999, that certain Amendment No. 2 thereto dated as of August 13, 1999, that certain Waiver and Amendment No. 3 thereto dated as of October 29, 1999, and that certain Amendment No. 4 thereto dated as of December 31, 1999 (such Loan and Security Agreement, as so amended being hereinafter referred to as the "EXISTING AGREEMENT"), pursuant to which the Lenders have provided loans to the Borrowers other than KMC III, Leasing III, Telecom.com and Services (the "EXISTING LOANS") and issued letters of credit for the account of the Borrowers other than KMC III, Leasing III, Telecom.com and Services and for which the Borrowers other than KMC III, Leasing III, Telecom.com and Services have incurred Letter of Credit Obligations (the "EXISTING LETTER OF CREDIT OBLIGATIONS").

B. The Borrowers, the Lenders, the Agent and the Collateral Agent have agreed to amend the Existing Agreement in certain respects, to, among other things, increase the Commitment Amount to \$700,000,000 and to add KMC III, Leasing III, Telecom.com and Services as Borrowers and to refinance the obligations of KMC III, Leasing III and Services under that certain Amended and Restated Loan and Security Agreement dated as of December 30, 1999 among KMC III, Leasing III, Services, the financial institutions from time to time parties thereto as lenders, Lucent Technologies Inc., as Agent for said lenders and State Street Bank and Trust Company as Collateral Agent for said Lenders (the "Lucent Loan Agreement") and have agreed to execute this Agreement as an amendment and restatement of the Existing Agreement, in order to incorporate such amendments and the Existing Agreement into a single document.

1

C. It is the intent of the parties hereto that the execution and delivery of this Agreement not effectuate a refinancing or novation of the Existing Loans and Existing Letter of Credit Obligations, but rather a modification to the terms governing the repayment of the Existing Loans and Existing Letter of Credit Obligations, which Existing Loans and Existing Letter of Credit Obligations remain outstanding as of the date hereof and remain secured by the Collateral.

ARTICLE I
AMENDMENT AND RESTATEMENT; DEFINITIONS

SECTION 1.01. AMENDMENT AND RESTATEMENT. The Borrowers, the Agent, the Collateral Agent and the Lenders hereby agree that, effective upon the execution and delivery of this Agreement by each such party: (a) the terms and provisions of the Existing Agreement shall be and hereby are amended, superseded and restated in their entirety by the terms and provisions of this Agreement, except that any grant of security by any Borrower pursuant to SECTION 8.01 of the Existing Agreement shall remain effective as of the date any such grant first became effective, and (b) the Existing Loans shall constitute the initial outstanding Loans under this Agreement, the Existing Letter of Credit Obligations shall constitute the initial outstanding Letter of Credit Obligations under this Agreement, and the Existing Loans and Existing Letter of Credit Obligations shall be payable solely in accordance with the terms of this Agreement, the Notes and any Loan Documents delivered pursuant hereto or modified in accordance with the General Reaffirmation. No party hereto shall have any obligations under the Existing Agreement, except to the extent that any obligations thereunder may be restated in this Agreement or the other Loan Documents. The Borrowers, the Agent, the Collateral Agent and the Lenders agree that the execution and delivery of this Agreement shall not effectuate a novation or refinancing of the Existing Loans and Existing Letter of Credit Obligations, but rather a substitution of certain of the terms governing the payment and performance of the Existing Loans and Existing Letter of Credit Obligations.

SECTION 1.02. DEFINITIONS. As used in this Agreement, the following words and terms shall have the meanings specified below:

"ACCESS LINES" shall mean the total number of installed business lines that provide service to a business customer of a Borrower including "resale", "on-net" and "unbundled network element"; PROVIDED, that resale shall constitute no more than twenty-five percent (25%) of the total Access Lines.

"ACCOUNTS" shall mean all present and future rights of any Borrower to payment for goods sold or leased or for services rendered which are not evidenced by instruments or chattel paper, and whether or not they have been earned by performance.

"ADDITIONAL BORROWER" shall mean any Subsidiary of KMC Holdings, KMC, KMC II, KMC III, KMC Virginia, Leasing I, Leasing II, Leasing III, Telecom.com or Services that enters into an accession agreement substantially in the form of EXHIBIT P hereto, is acceptable to the Requisite Lenders, and the outstanding Equity Interests of which are pledged to the Agent pursuant to a pledge agreement substantially in the form of EXHIBIT L attached hereto.

2

"ADDITIONAL PURCHASE AGREEMENT" shall mean a purchase agreement between any Borrower and an Additional Vendor relating to the purchase of Telecommunications Equipment on terms and conditions reasonably satisfactory to the Agents, if such purchase agreement contemplates Telecommunications Equipment purchases in excess of \$5,000,000 in any one year or \$15,000,000 in the aggregate, otherwise on the terms and conditions reasonably satisfactory to the Collateral Agent.

"ADDITIONAL VENDOR" shall mean a vendor of Telecommunications Equipment other than Lucent, which Additional Vendor shall be reasonably satisfactory to the Agents if the Additional Purchase Agreement the Additional Vendor is a party to contemplates Telecommunications Equipment purchases in excess of \$5,000,000 in any one year or \$15,000,000 in the aggregate, otherwise on the terms and conditions reasonably satisfactory to the Collateral Agent.

"AFFILIATE" shall mean any Person other than any Lender directly or indirectly controlling, controlled by or under common control with any Borrower and any officer or shareholder of such Person or any Borrower, which shareholder beneficially owns at least ten percent (10%) of the Equity Interests of such Person or any Borrower. For the purposes of this definition, "control"

(including, with correlative meanings, the terms "controlling," "controlled by", and "under common control with"), as used with respect to any Person, means the possession, directly or indirectly, of the power to direct or cause the direction of the management or policies of such Person, whether through the ownership of voting securities, by agreement or otherwise; PROVIDED, HOWEVER, that beneficial ownership of at least 10% of the Equity Interests of a Person shall be deemed to constitute control; and provided, further, that in no event shall any of the Agents or the Lenders be deemed to be an Affiliate of any Borrower or of KMC Holdings.

"AGED EQUIPMENT" shall mean Telecommunications Equipment, which has been in commercial operation for more than twelve months.

"AGENTS" shall mean collectively, the Agent, the Collateral Agent, the Documentation Agent and the Syndication Agent.

"APPLICABLE MARGIN" shall mean with respect to (i) each Loan bearing interest based upon the Base Rate, the margin determined in accordance with the criteria set forth on SCHEDULE 1.01(A) hereto, and (ii) each Loan bearing interest based upon the LIBO Rate, the margin determined in accordance with the criteria set forth on SCHEDULE 1.01(A) hereto, which margins shall be calculated based upon the financial statements provided pursuant to SECTION 5.06, with any readjustments being effective five Business Days following the Agent's receipt thereof; provided, however, that in the event that the Required Contribution is obtained on or prior to August 31, 2000, each such margin shall be reduced effective as of five (5) Business Days after receipt by Borrowers of the Required Contribution by twenty-five (25) basis points.

"ASSIGNMENT AGREEMENT" shall mean an assignment agreement entered into in connection with an assignment pursuant to SECTION 11.08 hereof substantially in the form of EXHIBIT O hereof.

3

"BASE LIBO RATE" shall mean, during any Interest Period, the rate of interest per annum (rounded upward to the nearest whole multiple of 1/16 of 1.0%, if such rate is not such a multiple) equal to the rate of interest notified to the Agent by the Reference Bank at which Dollar deposits in the approximate amount of the Loans to be made or continued as, or converted into, LIBOR Loans for such Interest Period and having a maturity comparable to such Interest Period would be offered by the London lending office of the Reference Bank in the London interbank market at approximately 11:00 a.m. (London time) two (2) Business Days prior to the commencement of such Interest Period.

"BASE RATE" shall mean the higher of (i) a rate per annum equal to the corporate base rate, prime rate or base rate of interest, as applicable, announced by the Reference Bank from time to time, changing when and as such rate changes, it being understood that such rate of interest is not necessarily the lowest or best rate charged by the Reference Bank to its customers, and (ii) the sum of the Federal Funds Effective Rate plus one-half percent (0.50%) per annum.

"BASE RATE LOAN" shall mean a Loan, or portion thereof, during any period in which it bears interest at a rate based upon the Base Rate.

"BASE RATE REVOLVING LOAN" shall mean a Revolving Loan during any period for which it is a Base Rate Loan.

"BASE RATE TERM A LOAN" shall mean any portion of the Term A Loans during any period for which such portion is a Base Rate Loan.

"BASE RATE TERM B LOAN" shall mean any portion of the Term B Loans during any period for which such portion is a Base Rate Loan.

"BASE RATE TERM LOAN" shall mean a Base Rate Term A Loan or a Base Rate Term B Loan.

"BENEFIT PLAN" shall mean a defined benefit plan as defined in Section

3(35) of ERISA (other than a Multiemployer Plan) in respect of which any Borrower or any ERISA Affiliate is, or within the immediately preceding six (6) years was, an "employer" as defined in Section 3(5) of ERISA.

"BORROWER" shall mean any of KMC, KMC II, KMC III, KMC Virginia, Leasing I, Leasing II, Leasing III, Telecom.com, Services and any Additional Borrower.

"BORROWING BASE" shall mean at any time the sum of the following amounts: (i) the aggregate cost of Telecommunications Equipment financed under this Agreement, minus any reserves established by the Collateral Agent with respect to Aged Equipment, (ii) the cash portion of the purchase price of Permitted Acquisitions, plus fees and expenses in connection with the Permitted Acquisitions; provided, however, that such fees and expenses may only be included in the Borrowing Base with respect to any Permitted Acquisition if the appraisal required by clause (8) of SECTION 6.08 with respect to such Permitted Acquisition indicates that the fair market value of the assets being acquired in

4

such Permitted Acquisition equals or exceeds the sum of the purchase price for such assets and such fees and expenses, and (iii) transaction costs incurred in connection with the execution, delivery and performance of the Loan Documents.

"BUSINESS" shall mean with respect to (i) each of KMC, KMC II, KMC III and KMC Virginia, the business of constructing, operating and maintaining the Systems owned by them and all operations related thereto or in support thereof, (ii) each of Leasing I, Leasing II and Leasing III the business of owning and leasing Switch Equipment, (iii) Services, the business of owning software, installation and other soft costs related to the Systems and providing services for the Systems, and (iv) Telecom.com, the business of developing and providing intranet services.

"BUSINESS DAY" shall mean (a) any day not a Saturday, Sunday or legal holiday in the State of New York or New Jersey, on which banks are open for business in New York and New Jersey and (b) with respect to all notices, determinations, fundings and payments in connection with the LIBO Rate or LIBOR Loans, any day that is a Business Day pursuant to CLAUSE (A) above and that is also a day on which trading is carried on by and between banks in the London interbank market.

"CAPITALIZATION" shall mean funded equity capitalization of KMC Holdings.

"CAPITALIZED LEASE OBLIGATIONS" shall mean Debt represented by obligations under a lease that is required to be capitalized for financial reporting purposes in accordance with GAAP, and the amount of such Debt shall be the capitalized amount of such obligations determined in accordance with GAAP.

"CASH ADVANCE" shall mean any Term B Loan which is not a Credit Advance.

"CHANGE OF CONTROL" shall mean (A) Harold N. Kamine ceases to have senior management responsibilities with respect to the Borrowers or KMC Holdings, (B) KMC Holdings no longer beneficially owns, directly or indirectly, all of the outstanding Equity Interests of each Borrower, (C) a "person" or "group" (within the meaning of Sections 13(d) and 14(d)(2) of the Exchange Act) becomes the ultimate "beneficial owner" (as defined in Rule 13d-3 under the Exchange Act) of more than 35% of the total voting power of the Voting Stock of KMC Holdings on a fully diluted basis and such ownership represents a greater percentage of the total voting power of the Voting Stock of KMC Holdings, on a fully diluted basis, than is held by the Existing Stockholders on such date, or (D) individuals who on the Closing Date constitute the Board of Directors (together with any new directors whose election by the Board of Directors or whose nomination by the Board of Directors for election by KMC Holdings' stockholders was approved by a vote of at least a majority of the members of the Board of Directors then in office who either were members of the Board of Directors on the Closing Date or whose election or nomination for election was previously so approved) cease for any reason to constitute a majority of the

members of the Board of Directors then in office.

"CLEC" shall mean a competitive local exchange carrier.

5

"CLOSING DATE" shall mean the date on which this Agreement is executed and delivered by the parties hereto.

"COLLATERAL" shall mean, all property and interests in property now owned or hereafter acquired by any Borrower in or upon which a security interest, lien or mortgage is granted to the Collateral Agent by any Borrower, whether under this Agreement or the other Loan Documents.

"COLLATERAL ASSIGNMENT OF LEASES" shall mean the Collateral Assignment of Leases in the form of EXHIBIT B attached hereto, which was executed and delivered pursuant to the Existing Agreement, together with the addenda thereto to be executed and delivered by KMC III, Leasing III, Telecom.com and Services pursuant to SECTION 4.01 hereof.

"COLLATERAL ASSIGNMENT OF LICENSES" shall mean the Collateral Assignment of Licenses in the form of EXHIBIT C attached hereto, which was executed and delivered pursuant to the Existing Agreement, together with the addenda thereto to be executed and delivered by KMC III, Leasing III, Telecom.com and Services pursuant to SECTION 4.01 hereof.

"COLLECTION ACCOUNTS" AND "COLLECTION AGENT" shall have the meanings given to such terms in SECTION 8.04 hereof.

"COMMITMENT" shall mean Lenders' commitment to lend as set forth in SECTION 2.01 hereof.

"COMMITMENT AMOUNT" shall mean (a) as to any Lender, the aggregate of such Lender's Revolving Loan Commitment Amount, Term Loan A Commitment Amount and Term Loan B Commitment Amount as set forth opposite such Lender's name on ANNEX A to this Agreement or in the most recent Assignment Agreement executed by such Lender and (b) as to all Lenders, the aggregate of all Lenders' Revolving Loan Commitment Amounts, Term Loan A Commitment Amounts and Term Loan B Commitment Amounts, which aggregate commitment shall be Seven Hundred Million Dollars (\$700,000,000) on the Closing Date, as such amount may be adjusted from time to time in accordance with this Agreement

"COMMON STOCK" shall mean with respect to any Person, all Equity Interests of such Person that are generally entitled to (i) vote in the election of directors of such Person or (ii) if such Person is not a corporation, vote or otherwise participate in the selection of the governing body, partners, managers or others that will control the management and policies of such Person.

"CONSOLIDATED" or "Consolidated" refers, with respect to any Person, to the consolidation of the accounts of such Person and its Subsidiaries, if any, in accordance with GAAP; PROVIDED, that with respect to KMC Holdings, unless otherwise indicated, its Subsidiaries shall not include any Excluded Subsidiaries.

"CONSOLIDATED DEBT" shall mean, with respect to KMC Holdings on a consolidated basis, at any date, the sum of the following determined on a consolidated basis, without duplication, in accordance with GAAP: (a) all liabilities, obligations and indebtedness for borrowed money, including, but not limited to, obligations evidenced by bonds, debentures, notes or other similar

6

instruments of any Borrower or KMC Holdings, (b) all obligations to pay the deferred purchase price of property or services of any Borrower or KMC Holdings (exclusive of rent for real property under leases that would not be capitalized in accordance with GAAP), including, but not limited to, all obligations under

noncompetition agreements, except trade payables arising in the ordinary course of business not more than ninety (90) days past due, (c) all obligations of any Borrower or KMC Holdings as lessee under capital leases (exclusive of the interest component thereof), (d) all Debt of any other Person secured by a Lien on any asset of any such Borrower or KMC Holdings, (e) all guaranty obligations of any Borrower or KMC Holdings, (f) all obligations, contingent or otherwise, of any Borrower or KMC Holdings relative to the face amount of letters of credit, whether or not drawn, and banker's acceptances issued for the account of any Borrower or KMC Holdings, (g) all obligations to redeem, repurchase, exchange, defease or otherwise make payments in respect of capital stock or other securities of any Borrower or KMC Holdings at any time prior to the third annual anniversary of the Term Loan Termination Date, and (h) all termination payments which would be due and payable by any Borrower or KMC Holdings pursuant to any hedging agreement. "Consolidated Debt" shall not include any intercompany Debt between the Borrowers or between any Borrower and KMC Holdings.

"CONTAMINANT" shall mean any pollutant, hazardous substance, toxic substance, hazardous waste, special waste, petroleum or petroleum derived substance or waste, or any constituent of any such substance or waste.

"CONTRIBUTED CAPITAL" shall mean, with respect to the Borrowers, at any date of determination, all contributed capital to such Borrowers including all funded equity and all Qualified Intercompany Loans.

"CONTRIBUTION AGREEMENT" shall mean the Contribution Agreement among the Borrowers (other than KMC III, Leasing III, Telecom.com and Services) substantially in the form of EXHIBIT Q, which was executed and delivered in connection with the Existing Agreement, as amended to add KMC III, Leasing III, Telecom.com and Services as parties thereto pursuant to the General Reaffirmation.

"COUNSEL" shall mean Sidley & Austin or such successor counsel selected by the Collateral Agent.

"CREDIT ADVANCE" shall mean a Term B Loan made to refinance a trade payable owing by any of the Borrowers to Lucent under a Lucent Purchase Agreement.

"CREDIT SUPPORT" shall have the meaning given to such term in SECTION 2.10.

"DEBT" shall mean, with respect to any Person, (i) indebtedness for borrowed money, (ii) obligations evidenced by bonds, debentures, notes or other similar instruments, (iii) obligations which have been incurred in connection with the acquisition of property or services (including, without limitation, obligations to pay the deferred purchase price of property or services), excluding trade payables and accrued expenses incurred in the ordinary course of business, (iv) obligations as lessee under leases which shall have been or

7

should be, in accordance with GAAP, recorded as capital or operating leases, (v) all Guarantees of such Person, including without limitation, all debt of any other Person secured by a Lien on property of such Person, (vi) all reimbursement obligations, contingent or otherwise, with respect to letters of credit or banker's acceptances issued for the account of any Borrower, and (vii) all indebtedness, obligations or other liabilities in respect of any Interest Rate Agreement, PROVIDED that Debt shall not include any liability for Federal, state, local or other taxes, and PROVIDED, FURTHER, that the amount outstanding at any time of any Debt issued with original issue discount is the principal amount of such Debt less the remaining unamortized portion of the original issue discount of such Debt at such time as determined in conformity with GAAP, and that with respect to any high-yield Debt, the amount thereof shall not include fees incurred in raising such Debt or overfunded amounts set aside solely to pay interest. Notwithstanding any other provision of the foregoing definition, any trade payable arising from the purchase of goods or materials or for services obtained in the ordinary course of business shall not be deemed to be "Debt" of any Borrower for purposes of this definition. Furthermore, guarantees of (or obligations with respect to letters of credit supporting) Debt otherwise

included in the determination of such amount shall not be included.

"DEFAULT" shall mean any event which but for the passage of time or giving of notice would constitute an Event of Default.

"DOCUMENTATION AGENT" shall mean General Electric Capital Corporation.

"DOLLARS" or "\$" shall mean lawful money of the United States of America.

"EASEMENTS" shall have the meaning given to such term in SECTION 3.20 hereof.

"EBITDA" shall mean, with respect to any Person, for any period, an amount equal to (i) Net Income PLUS (ii) the sum of the following, to the extent deducted in determining Net Income: (A) income and franchise taxes, (B) interest expense, (C) amortization, depreciation and other non-cash charges, MINUS (iii) the sum of interest income plus extraordinary gains, as determined in accordance with GAAP as calculated at the end of such period.

"ELIGIBLE FRONTING ASSIGNEE" shall mean (a) Lucent or any Affiliate of Lucent, (b) any commercial bank or financial institution (including any credit corporation) that either (i) has total assets in excess of \$1,000,000,000 and either (x) has a combined capital and surplus and undivided profits in excess of \$250,000,000 or (y) has long-term indebtedness rated "BBB+" or better by Standard & Poor's Ratings Service or "Baa1" or better by Moody's Investors Services, Inc., or (ii) has an Affiliate that satisfies the criteria described in the foregoing clause (i), or (c) any fund that is regularly engaged in the making, purchasing or investing in loans or securities that is controlled by an institution described in clause (b) above, and in each case, Lucent, as assignor, and such Person described in clause (a), (b) or (c) above, as assignee, complies with the provisions of SECTION 11.08(C) below.

"ENVIRONMENTAL LAWS" shall mean all federal, state and local laws, rules, regulations, ordinances, programs, permits, guidance, orders and consent decrees or other binding determination of any Governmental Authority relating to

8

protection of the environment, the handling, disposal or Release of Contaminants and occupational safety and health. Such laws and regulations include but are not limited to the Resource Conservation and Recovery Act, 33 U.S.C. ss. 6901 ET SEQ., as amended; the Comprehensive Environmental Response, Compensation and Liability Act, 42 U.S.C. ss. 9601 ET SEQ., as amended; the Toxic Substances Control Act, 15 U.S.C. ss. 2601 ET SEQ., as amended; the Clean Water Act, 33 U.S.C. ss. 1251 ET SEQ., as amended; the Clean Air Act, 42 U.S.C. ss. 7401 ET SEQ., as amended; state and federal environmental lien and environmental cleanup programs; the Occupational Safety and Health Act, 29 U.S.C. ss. 651 ET SEQ.; and U.S. Department of Transportation regulations related to the transportation of hazardous materials, each as from time to time hereafter in effect.

"EQUITY AFFILIATE" shall mean, as applied to any Person, any other Person directly or indirectly controlling, controlled by, or under direct or indirect common control with, such Person. For purposes of this definition, "control" (including, with correlative meanings, the terms "controlling", "controlled by" and "under common control with"), as applied to any Person, means the possession, directly or indirectly, of the power to direct or cause the direction of the management and policies of such Person, whether through the ownership of voting securities, by contract or otherwise.

"EQUITY INTEREST" shall mean, with respect to any Person, any and all shares or other equivalents (however designated) of capital stock, membership units, partnership interests or any other participation right or other interest in the nature of an equity interest in such Person or any option, warrant or other security convertible into any of the foregoing.

"ERISA" shall mean the Employee Retirement Income Security Act of 1974, as amended from time to time.

"ERISA AFFILIATE" shall mean (i) any corporation which is a member of the same controlled group of corporations (within the meaning of Section 414(b) of the IRC) as any Borrower, (ii) any partnership or other trade or business (whether or not incorporated) under common control (within the meaning of Section 414(c) of the IRC) with any Borrower and (iii) any member of the same affiliated service group (within the meaning of Section 414(m) of the IRC) as any Borrower, any corporation described in CLAUSE (i) above or any partnership or trade or business described in CLAUSE (ii) above.

"EUROCURRENCY LIABILITIES" shall have the meaning assigned to that term in Regulation D of the Federal Reserve Board, as in effect from time to time.

"EVENT OF DEFAULT" shall have the meaning given to such term in ARTICLE IX hereof.

"EVENT OF LOSS" shall mean, with respect to any item of Collateral, the actual or constructive loss of such item of Collateral or the use thereof, due to theft, destruction, damage beyond repair or damage from any reason whatsoever which is not reimbursable by insurance, to an extent which makes repair uneconomical, or rendition thereof unfit for normal use, or the condemnation, confiscation or seizure of, or requisition of title to or use of,

9

such item of Collateral by any Governmental Authority or any other Person, acting under or deemed to be acting under color of any Governmental Authority.

"EXCESS OPERATING CASH FLOW" shall mean for any fiscal quarter, Net Income of the Borrowers plus non-cash interest expense, depreciation and amortization and any other non-cash items of the Borrowers, minus scheduled principal payments of the Borrowers to Lenders, lease payments and capital expenditures of the Borrowers, plus or minus changes in working capital of the Borrowers, as appropriate.

"EXCHANGE ACT" shall mean the Securities Exchange Act of 1934, as amended from time to time.

"EXCLUDED LETTERS OF CREDIT" shall have the meaning ascribed to such term in SECTION 6.13(viii).

"EXCLUDED SUBSIDIARY" shall mean (a) any Subsidiary of KMC Holdings which is neither a Borrower under this Agreement nor a Person which directly or indirectly beneficially owns Equity Interests in any Borrower, PROVIDED that (i) at the time such other Subsidiary was created or acquired, no Default or Event of Default shall have occurred and be continuing before or after giving effect to the creation or acquisition of such Subsidiary, and (ii) no portion of the Required Contributions, the proceeds of KMC's 12 1/2 % Senior Discount Notes due 2008, the proceeds of KMC's 13 1/2 % Senior Notes due 2009, the proceeds of the Equity Interests of KMC Holdings issued on or prior to the Closing Date or the Revolving Loan Commitment Amount shall have been or shall be used to fund the acquisition or operations of such Subsidiary, and KMC Holdings has external sources of funding (other than the Required Contributions and the Revolving Loan Commitment Amount) to finance the acquisition and operations of such Subsidiary, (b) KMC Telecom Financing, Inc., a Delaware corporation, (c) KMC Financial Services LLC, a Delaware limited liability company, or (d) any other Subsidiary of KMC Holdings which KMC Holdings or any Borrower requests the Lenders to designate as such, and which designation is agreed to by the Required Lenders.

"EXISTING STOCKHOLDERS" shall mean Harold N. Kamine, his Equity Affiliates, Nassau Capital Partners L.P., NAS Partners I L.L.C. or their respective successors, and their Equity Affiliates.

"FCC" shall mean the Federal Communications Commission or any successor commission or agency of the United States of America having jurisdiction over any Borrower or any System.

"FEDERAL FUNDS EFFECTIVE RATE" shall mean, for any period, a fluctuating interest rate per annum equal for each day during such period to (a) the weighted average of the rates on overnight federal funds transactions with

members of the Federal Reserve System arranged by federal funds brokers, as published for such day (or if such day is not a Business Day, for the preceding Business Day) by the Federal Reserve Bank of New York in the Composite Closing Quotations for U.S. Government Securities; or (b) if such rate is not so published for any day which is a Business Day, the average of the quotations at approximately 10:30 a.m. (New York time) for such day on such transactions

10

received by the Reference Bank from three federal funds brokers of recognized standing selected by it.

"FEDERAL RESERVE BOARD" shall mean the Board of Governors of the Federal Reserve System or any successor thereto.

"FEE LETTERS" shall mean (i) that certain letter agreement dated September 25, 1998 among the Borrowers, KMC Holdings, the Collateral Agent, Capital Syndications Corporation ("CSC"), General Electric Capital Corporation ("GECC"), GECC Capital Market Groups, Inc. ("GECG"), the Agent, First Union Capital Markets, a Division of Wheat First Securities, Inc. ("FUCM") and Canadian Imperial Bank of Commerce ("CIBC"), (ii) that certain letter agreement dated September 25, 1998 among the Borrowers, KMC Holdings, the Collateral Agent, CSC, GECC, GECG, the Agent and FUCM, (iii) that certain letter agreement dated December 22, 1998 among the Borrowers, KMC Holdings, the Collateral Agent, CSC, GECC, GECG, the Agent, FUCM and CIBC, and (iv) that certain letter agreement dated February 14, 2000 between the Borrowers and Lucent.

"FINANCIALS" shall have the meaning given to such term in SECTION 3.03.

"FIXED CHARGES" shall mean with respect to any period for the Borrowers on a combined basis, the sum of the following amounts calculated at the end of such period with respect to such period without duplication and in accordance with GAAP:

(i) the product of two multiplied by scheduled principal and interest payments with respect to Debt for the six month period then ending, (ii) capital expenditures for the four quarter period then ending, (iii) the product of two multiplied by income tax payments for the six month period then ending, and (iv) the product of two multiplied by cash dividend payments for the six month period then ending.

"FIXED CHARGE COVERAGE RATIO" shall have the meaning assigned to such term in SECTION 7.02(c).

"FRONTING COMMITMENT" shall mean a portion of the Term B Loan Commitment Amount that is assigned by Lucent pursuant to an Assignment Agreement designating the assigned portion of the Term B Loan Commitment Amount as a "Fronting Commitment".

"FUNB" shall mean First Union National Bank, a national banking association.

"GENERAL REAFFIRMATION" shall mean the General Reaffirmation and Modification Agreement in the form of EXHIBIT T hereto.

"GOVERNMENTAL APPROVAL" shall mean, with respect to any Borrower, any license, permit, franchise or certificate of public convenience and necessity issued to any Borrower by the FCC, any PUC or any other Governmental Authority in connection with any System.

11

"GOVERNMENTAL AUTHORITY" shall mean any federal, state or local governmental authority or other political subdivision thereof and any entity exercising executive, legislative, judicial, regulatory or administrative functions of or pertaining to government.

"GUARANTEE" shall mean any obligation, contingent or otherwise, of any Person guaranteeing any indebtedness of any other Person (the "Primary Obligor") in any manner, whether directly or indirectly, and including any obligation of such Person, direct or indirect, (i) to purchase or pay (or advance or supply funds for the purchase or payment of) such indebtedness or to purchase (or to advance or supply funds for the purchase of) any security for the payment of such indebtedness; (ii) to purchase property, securities or services for the purpose of assuring the owner of such indebtedness of the payment of such indebtedness; or (iii) to maintain working capital, equity capital or other financial statement condition of the Primary Obligor so as to enable the Primary Obligor to pay such indebtedness.

"HOLDINGS III" shall mean KMC Telecom III Holdings, Inc., a Delaware corporation.

"INDENTURES" shall mean (i) that certain Indenture dated as of January 29, 1998 between KMC Holdings, as Issuer and The Chase Manhattan Bank, as Trustee, relating to KMC Holdings' 12 1/2 percent Senior Discount Notes due 2008, together with the First Supplemental Indenture relating thereto dated as of May 24, 1999 and (ii) that certain Indenture dated as of May 24, 1999 between KMC Holdings, as Issuer and The Chase Manhattan Bank, as Trustee, relating to KMC Holdings' 13 1/2 percent Senior Notes due 2009.

"INTELLECTUAL PROPERTY DOCUMENTS" shall mean (i) the Trademark Security Agreement, in the form of EXHIBIT S attached hereto, executed by the Borrowers (other than KMC III, Leasing III, Telecom.com and Services) in favor of the Collateral Agent for the benefit of the Agents and the Lenders, as amended, restated or otherwise modified from time to time and (ii) any other trademark, patent or copyright security agreement executed pursuant to SECTION 5.16 by any Borrower.

"INTEREST EXPENSE" shall mean for any period, the total interest expense (including, without limitation, interest expense attributable to capital leases) determined on a combined basis, without duplication, for the Borrowers in accordance with GAAP.

"INTEREST PERIOD" shall mean, with respect to each LIBOR Loan, the interest period applicable to such LIBOR Loan as set forth in the applicable Notice of Borrowing or Notice of Conversion or Continuation.

"INTEREST RATE AGREEMENT" shall mean for any Person, any interest rate swap agreement, interest rate cap agreement, interest rate collar agreement or other similar agreement designed to protect the party indicated therein against fluctuations in interest rates.

"INVESTMENT" shall mean, as applied to any Person, any direct or indirect purchase or other acquisition by that Person of securities, or of a beneficial interest in securities, of any other Person, and any direct or indirect loan, advance (other than deposits with financial institutions

12

available for withdrawal on demand, prepaid expenses, advances to employees, officers and directors and similar items, each made or incurred in the ordinary course of business), or capital contribution by that Person to any other Person, including all Debt of such other Person to that Person, but excluding accounts owed by that other Person in the ordinary course of business. Investments shall exclude (i) extensions of trade credit on commercially reasonable terms in accordance with normal trade practices and (ii) the repurchase of securities of any Person by such Person. The amount of any Investment shall be determined in conformity with GAAP.

"IRC" shall mean the Internal Revenue Code of 1986, as amended from time to time, and the rules and regulations promulgated thereunder, and any successor statutes or rules and regulations.

"IRS" shall mean the Internal Revenue Service or any successor agency.

"KMC HOLDINGS" shall mean KMC Telecom Holdings, Inc., a Delaware corporation.

"KMC HOLDINGS GUARANTY" shall mean that certain unlimited guaranty of KMC Holdings in the form of EXHIBIT G hereto and executed and delivered by KMC Holdings in connection with the Existing Agreement, as amended by the General Reaffirmation.

"KMC TELECOM.COM" shall mean KMC Telecom.com, a Delaware corporation.

"LENDING OFFICE" shall mean, with respect to a Lender or Agent, any office, branch, subsidiary or affiliate of such Lender or the Agent.

"LETTER OF CREDIT" shall mean a letter of credit issued or caused to be issued for the account of a Borrower or with respect to which Credit Support is provided, in any case pursuant to SECTION 2.10.

"LETTER OF CREDIT OBLIGATIONS" shall mean without duplication, the sum of the aggregate maximum undrawn face amount of all outstanding Letters of Credit and unpaid reimbursement obligations with respect to all Letters of Credit.

"LIBO RATE" shall mean, for any Interest Period with respect to LIBOR Loans comprising part of the same borrowing, the rate of interest per annum equal to the per annum rate of interest displayed on the Dow Jones Market Screen Page 3750, as being the one-month, two-month, three-month or six-month, as applicable, reserve adjusted "London Interbank Offered Rate", provided, however, that if such rate is not displayed or published, then the rate of interest per annum (rounded upward to the nearest whole multiple of 1/16 of 1.0%, if such rate is not such a multiple) determined by the Agent as follows:

$$\begin{aligned} \text{LIBO Rate} &= \text{BASE LIBO RATE} \\ &\text{-----} \\ &1.00 - \text{LIBOR Reserve Percentage} \end{aligned}$$

13

"LIBOR INTEREST PAYMENT DATE" shall mean, with respect to a LIBOR Loan, the last day of each Interest Period applicable to such Loan, and, if such Interest Period has a duration of more than three months, on each day which occurs during such Interest Period every three months from the first day of such Interest Period.

"LIBOR INTEREST RATE DETERMINATION DATE" shall mean each date of calculating the LIBO Rate for purposes of determining the interest rate with respect to an Interest Period. The LIBOR Interest Rate Determination Date for any LIBOR Loan shall be the second Business Day prior to the first day of the related Interest Period for such LIBOR Loan.

"LIBOR LOAN" shall mean a Loan, or portion thereof, during any period in which it bears interest at a rate based upon the LIBO Rate.

"LIBOR RESERVE PERCENTAGE" shall mean for any day for any Interest Period the maximum reserve percentage (expressed as a decimal, rounded upward to the next 1/100th of 1.0%) in effect on such day (whether or not applicable to any Lender) for United States domestic banks under regulations issued from time to time by the Federal Reserve Board for determining the maximum reserve requirement (including any emergency, supplemental or other marginal reserve requirement) with respect to Eurocurrency Liabilities having a term comparable to such Interest Period.

"LIBOR REVOLVING LOAN" shall mean a Revolving Loan during any period for which it is a LIBOR Loan.

"LIBOR TERM A LOAN" shall mean any portion of the Term A Loans during any period for which such portion is a LIBOR Loan.

"LIBOR TERM B LOAN" shall mean any portion of the Term B Loans during

any period for which such portion is a LIBOR Loan.

"LIBOR TERM LOAN" shall mean a LIBOR Term A Loan or a LIBOR Term B Loan.

"LIEN" shall mean any mortgage, pledge, deed of trust, assignment, lien, charge, encumbrance or security interest of any kind, or the interest of a vendor or lessor under any conditional sale agreement, capital lease or other title retention agreement, but excluding easements, rights of way or similar encumbrances on real property which are in the ordinary course and which do not materially affect the value, use and insurability of title of such real property.

"LOAN" shall mean a Revolving Loan or a Term Loan.

"LOAN DOCUMENTS" shall mean this Agreement, the Existing Agreement, each "Loan Document" under and as defined in the Existing Agreement, the Collateral Assignment of Leases, the Collateral Assignment of Licenses, the Mortgages, the Notes, the Pledge Agreements, the KMC Holdings Guaranty, the Intellectual Property Documents, the Fee Letters, all other agreements, instruments and documents, including, without limitation, security agreements, loan agreements, notes, guarantees, mortgages, deeds of trust, subordination agreements, pledges, powers of attorney, consents, assignments, contracts, notices, leases, financing statements, Interest Rate Agreements between any

14

Borrower and the Agent, the Collateral Agent, or the Lenders and all other written matter whether heretofore, now, or hereafter executed by or on behalf of any Borrower or any other Person in connection with the transactions contemplated hereby and delivered to the Agent, the Collateral Agent or the Lenders, together with all agreements and documents referred to therein or contemplated thereby; PROVIDED, HOWEVER, that the documents executed in connection with the purchase by Newcourt Communications Finance Corporation (formerly known as AT&T Credit Corporation) or any Lender of Equity Interests in KMC or KMC Holdings shall not constitute Loan Documents.

"LUCENT" shall mean Lucent Technologies Inc.

"LUCENT LOAN AGREEMENT" shall have the meaning given to such term in Recital B.

"LUCENT PURCHASE AGREEMENT" shall mean an agreement between any Borrower and Lucent for the purchase of Telecommunications Equipment, on terms and conditions satisfactory to the Agents.

"MANAGEMENT AGREEMENT" shall mean that certain Management Agreement dated as of December 18, 1998 among KMC Holdings, the Borrowers, KMC Telecom Financing, Inc., a Delaware corporation, and KMC Financial Services, LLC, a Delaware limited liability company, as amended by Amendment Nos. 1, 2 and 3 thereto.

"MATERIAL ADVERSE EFFECT" shall mean, with respect to any Person, a material adverse effect upon the condition (financial or otherwise), operations or properties of such Person, or upon the ability of such Person to perform under the Loan Documents.

"MAXIMUM RATE" shall have the meaning given to such term in SECTION 2.13 hereof.

"MILESTONE PLAN" shall mean the 39-city Milestone Plan of the Borrowers attached as EXHIBIT A hereto, as such Milestone Plan may be amended from time to time with the prior written consent of the Requisite Lenders.

"MORTGAGES" shall mean mortgages or deeds of trust in favor of the Collateral Agent, with respect to any Borrower's (i) owned Real Property and (ii) other interests in those items of real property and Easements, as specified by the Collateral Agent, which mortgages and deeds of trust shall be in form and substance satisfactory to the Collateral Agent.